

# Missouri Physical Fitness Assessment Manual



---

Missouri Department of Elementary and Secondary Education  
D. Kent King, Commissioner of Education  
October 2000

## ACKNOWLEDGEMENTS

Many individuals contributed to the development of this document, including numerous teachers who reviewed the draft document and provided valuable feedback. The Missouri Department of Elementary and Secondary Education would like to thank everyone who assisted, especially the following individuals:

Joyce Bailey, Central Missouri State University  
Mari Ann Bahr, Columbia School District  
Elaine Brune, Francis Howell School District  
David Caldwell, Pattonville School District  
Sandy Dofflemeyer, Virginia Department of Education  
Joyce Hallmark, Parkway School District  
Karen Helms, Hazelwood School District  
Betty Hennessy, Los Angeles, California, County Office of Education  
Jim Herauf, Missouri Association for Health, Physical Education, Recreation, and Dance  
Sandy Mazzocco, Missouri Department of Elementary and Secondary Education  
Mary Lou Meredith, Cooper Institute for Aerobics Research  
Margie Miller, St. Joseph School District  
Theresa Miller, Springfield School District  
John Shelden, Rockwood School District  
Joanie Shover, Blue Springs School District  
Christine Spain, President's Council on Physical Fitness and Health  
Jennifer Stipetich, Liberty School District  
Georgia Varner, Fayette School District  
Debbie Verbeck, St. Joseph School District  
Sharon Wall, Francis Howell School District  
Nannette Wolford, Missouri Western State College  
Hank Zak, Ferguson-Florissant School District

The Missouri Physical Fitness Assessment Program is based on standards and criteria from the *President's Challenge* and the *FitnessGram*. This material is used with permission. To order these documents, you may contact the following agencies.

*President's Challenge*  
President's Council on Physical Fitness  
and Sports  
200 Independence Ave., SW, Room 738H  
Washington, DC 20201  
Phone: 1-800-258-8146

*FitnessGram*  
Human Kinetics  
PO Box 5076  
Champaign, IL 61825-5087  
Phone: 1-800-747-4457  
Fax: 217-351-1549

## INTRODUCTION

The Missouri Assessment Program (MAP), as required by the Outstanding Schools Act of 1993, measures student progress toward the Show-Me Standards. The Department of Elementary and Secondary Education developed the MAP assessment for Health and Physical Education and administered it to fifth- and ninth-grade students on a voluntary basis in the spring of 2000. The assessment will be required for all students at these grades in the spring of 2001. At each grade, the three-session (two class periods) written test consists of three types of items:

- selected response (multiple choice),
- constructed response (short answer), and
- written performance events.

In addition, a physical-fitness assessment of all fifth and ninth graders was voluntary in 2000 and will be required in 2001. **This document addresses the physical fitness components that are to be assessed and presents instructions for reporting the results.**

The goals of the Missouri Physical Fitness Assessment are to promote enjoyable regular physical activity and to provide a wellness-related fitness assessment and baseline data for Missouri's youth. While the Physical Fitness Assessment is required for students in grades five and nine, it is hoped that **all** students in Missouri will be motivated to achieve a level of activity and fitness which is associated with the excellent health necessary for academic achievement.

A quality health and physical education program seeks to develop affective, cognitive, and behavioral components for all students, regardless of gender, age, disability, or any other factor. A key concept of the Missouri Physical Fitness Assessment is that physical activity should be enjoyable and that physical activity contributes to good health, optimal functioning, learning, and well being, and is important throughout a person's lifetime. Physical fitness testing is most effective when it is part of a comprehensive physical education program that supports testing with educational and motivational information. School programs should have the long-term view of promoting appropriate physical activity rather than focusing only on developing "athletic" physical fitness.

The Missouri Physical Fitness Assessment is designed to meet three distinct purposes. First, the assessment provides students, teachers, and parents/guardians with information regarding the student's current fitness status. Fitness information can be used as the basis for designing an individualized fitness program for each student. Second, the assessment provides information for program evaluation. A teacher can determine the number of students who meet or exceed the Healthy Fitness Range (HFR) and adjust the curriculum, if needed, and encourage improvement for students at the lower end of the Healthy Fitness Range (HFR). Third, the assessment provides information for statewide monitoring of fitness levels of Missouri's fifth- and ninth-grade students.

The components to be assessed are based on the *President's Challenge* and the *FitnessGram* because these are physical fitness assessments that are commonly used in Missouri schools. Pictures and diagrams depicting how to administer each of the different tests are available in both the *President's Challenge* and *FitnessGram* manuals. (See page 2 for ordering information.)

Both the *President's Challenge* and the *FitnessGram* have been administered to millions of students and have proven to be very safe. However, teachers should recognize that the possibility of injury exists with any physical activity. Districts should establish policies related to medical information, records, and clearance for physical activity, and teachers must be knowledgeable about these policies.

Prior to conducting any fitness test, it is vital that teachers are aware of any potential student health problems. Some students may have health conditions that require considerations during the administration of fitness assessments. Maximizing the safety of all students should be of foremost consideration.

The Missouri Physical Fitness Assessment measures the following components of fitness that have been identified as being important because of their relationship to overall wellness, optimal function, and learning.

- 1) Aerobic Capacity (choose one of the following)
  - 1a) One Mile Run/Walk
  - 1b) The PACER
- 2) Abdominal strength/endurance (choose one of the following)
  - 2a) Curl-up (one minute)
  - 2b) Curl-up (cadence)
  - 2c) Partial Curl-up
- 3) Upper Body Strength/Endurance (choose one of the following)
  - 3a) Push-up
  - 3b) Pull-up
  - 3c) Modified Pull-up
  - 3d) Flexed Arm Hang
- 4) Flexibility (choose one of the following)
  - 4a) Sit and Reach
  - 4b) Back-Saver Sit and Reach
  - 4c) V-Sit Reach
- 5) Body Composition (optional)
  - 5a) Body Mass Index
  - 5b) Skin fold Measurements

## ADMINISTRATION AND SCORING

### 1. AEROBIC CAPACITY

Aerobic capacity is perhaps the most important area of any fitness program. Research clearly indicates that acceptable levels of aerobic capacity are associated with a reduced risk of high blood pressure, coronary heart disease, obesity, diabetes, some forms of cancer, and other health problems in adults.

Aerobic capacity relative to body weight is considered to be the best indicator of a person's overall cardio respiratory capacity. Many terms have been used to describe this dimension of physical fitness, including cardiovascular fitness, cardio respiratory fitness, cardio respiratory endurance, aerobic fitness, aerobic work capacity, and physical working capacity. A laboratory measure of maximal oxygen uptake is generally considered to be the most accurate measure of aerobic capacity. (*FitnessGram Manual*, page 31)

*(Choose one of the following to administer.)*

#### 1a. One-Mile Run/Walk

**Source:** *President's Challenge* and *FitnessGram*

**Objective:** To measure the time it takes a student to walk and/or run a one-mile distance at the fastest pace possible. If a student cannot run the total distance, walking is permitted.

**Equipment:** A flat running course, stopwatch, pencil, and score sheets are required. The course may be a track or any other measured area. The course may be measured using a tape measure or cross-country wheel. If the track is metric or shorter than 440 yards, adjust the running course (1609.34 meters = 1 mile; 400 meters = 437.4 yards; 1,760 yards = 1 mile). On a metric track, add 10 yards to the total four laps.

**Testing:** On a safe one-mile course, students begin running on the count, “**Ready? Go!**” Walking may be interspersed with running. However, students should understand that the objective is to cover the distance as fast as possible.

**Recommendations for test administration:** Before administering this test, students' health status should be reviewed. Students should be given ample instruction on how to pace themselves and should be allowed to practice running this distance against time. Sufficient time should be allowed for warming up and cooling down before and after the test.

**Scoring:** The score is the time it takes to complete the run and is recorded in minutes and seconds.

## **1b. PACER (*Progressive Aerobic Cardiovascular Endurance Run*)**

**Source:** *FitnessGram*

**Objective:** To determine aerobic capacity by having students run as long as possible back and forth across a 20 meter (21 yards and 32 inches) course at a specified pace that gets faster each minute.

**Equipment:** Cassette tape player or a CD player with adequate volume, pre-recorded tape with timed “beeps” or music, marker cones, measuring tape, and a flat, non-slippery surface at least 20 meter (21 yards and 32 inches) in length. (In order to perform the PACER, a pre-recorded CD or cassette tape is needed. These are available only through *FitnessGram*.)

**Set-Up:** Mark the 20-meter (21 yards and 32 inches) course with marker cones to divide lanes. Also tape or chalk a line at each end. If using the audiotape, calibrate it by using the one-minute test interval at the beginning of the tape.

**Testing:** Following the five second count down, the student should run across the 20 meter distance and touch the line with his/her foot by the time the beep sounds. At the sound of the beep, the student turns around and runs back to the other end. If the student gets to the line before the beep, he/she must wait for the beep before running the other direction. The PACER test contains 21 levels (21 minutes). During the first minute (level one) of the PACER, the student has **nine seconds** to run the distance (20 meters). Each minute (level) the pace increases by **one-half second**.

Allow the student to attempt to catch up with the pace until he/she has missed two beeps. The student is stopped after being unable to reach the lines two times (not necessarily in succession). Students who have missed two beeps should walk away from the testing area to a designated cool-down area, being careful not to interfere with others who may still be running.

**Recommendations for test administration:** Students should be allowed at least two practice sessions. First, allow students to listen to several minutes of the tape so they know what to expect, and then have students perform a couple of practice runs. Allow students to select a partner, with one student performing the test while the other student counts laps.

**Scoring:** The score is the total **number of laps completed** by each student. Single beeps indicate the end of a lap (20-meter course). A lap is defined as running across the 20-meter distance one time.

## 2. ABDOMINAL STRENGTH/ENDURANCE

Strength and endurance of the abdominal muscles are important in promoting good posture and correct pelvic alignment. The latter is particularly important in the maintenance of low back health.

In testing and training the muscles of this region, it is difficult to isolate the abdominal muscles. It is important to note that the new partial (abdominal) curl-ups and curl-ups with a cadence, done slowly with the knees bent and feet not held, are a better indicator of the strength and endurance of the abdominal muscles than the timed curl-ups. Furthermore, compression of the spine and assistance of hip flexor muscles are minimized in these tests. (*FitnessGram Manual*, page 21)

*(Choose one of the following to administer.)*

### 2a. Curl-up (one minute)

**Source:** *President's Challenge*

**Objective:** To measure abdominal strength and endurance by counting the maximum number of curl-ups performed in one minute.

**Equipment:** Stopwatch, mat or other clean and cushioned surface.

**Testing:** Have the student lie on a cushioned, clean surface with knees flexed and feet about 12 inches from the buttocks. The partner holds the student's feet. Arms are crossed with hands placed on opposite shoulders and elbows held close to chest. Keeping this arm position, the student raises the trunk; curling up to touch elbows to thighs, and then lowers the back to the floor so that the scapulas (shoulder blades) touch the floor. This constitutes one curl-up. To start, a timer calls the signal, "**Ready? Go!**" and begins timing the student for one minute. The student stops on the word "**Stop.**" Bouncing off the floor is not permitted.

**Scoring:** The number of curl-ups performed correctly in one minute.

### 2b. Curl-up (cadence)

**Source:** *FitnessGram*

**Objective:** To measure abdominal muscle strength and endurance by counting the number of curl-ups performed in a controlled rhythmical fashion every 3 seconds up to a maximum of 75 seconds.

**Equipment:** Mat or other clean, cushioned surface; a marking strip 4½ inches wide; and a cassette tape or CD player. (A pre-recorded cassette tape or CD is available through *FitnessGram*.)

**Testing:** A measuring strip 4½ inches wide should be placed on the floor. Allow students to select a partner. Partner A will perform the curl-ups, while partner B counts and watches for form errors. Partner B may place hands under Partner A's head, or a piece of paper may be put on the mat instead, to help Partner B see that Partner A's head touches down on each repetition. Partner A lies on a cushioned surface with knees flexed at a 140 degree angle, feet flat on the floor, arms extended forward with fingertips at the edge of the measuring strip. The feet are **NOT** held or anchored. Partner A curls up slowly, sliding the fingertips past the strip, then back down. Curl-ups are performed at a cadence of about 20 curl-ups per minute (one curl-up every three seconds). The test administrator should call an “**Up, Down**” command (cadence), or use the pre-recorded cadence found on the PACER music tape or CD from *FitnessGram*. Curl-ups are continued until the student has two form corrections, can no longer continue, or until a maximum of 75 curl-ups are performed. If the student gets off the cadence, it is an error. Two times off the cadence ends the test.

**Scoring:** Record only those curl-ups performed with proper form and in rhythm.

### **2c. Partial Curl-up**

**Source:** *President's Challenge*

**Objective:** To measure abdominal strength and endurance by counting the maximum number of curl-ups completed.

**Equipment:** Mat or other clean and cushioned surface, metronome or audiotape.

**Testing:** Have student lie on cushioned surface with knees flexed and feet about 12 inches from buttocks. The feet are **NOT** held or anchored. Arms are extended forward with fingers resting on the legs and pointing toward the knees. The student's partner is behind the head with hands cupped under the student's head. The student being tested curls up slowly sliding the fingers up the legs until the fingertips touch the knees, then back down until the head touches the partner's hands. The curl-ups are done to a metronome, audiotape, or to test administrator's “**Up, Down**” command with one complete curl-up every three seconds and continued until the student has not done the last three in rhythm.

**Scoring:** Record only those curl-ups performed with proper form and in rhythm.

## **3. UPPER BODY STRENGTH/ENDURANCE**

Upper body strength is important for maintaining functional health and correct posture, thereby reducing possibilities of lower-back pain and restrictions in independent living. It is important to educate students regarding the prevention of problems that can affect them as adults.

*(Choose one of the following to administer.)*

**3a. Push-up**

**Source:** *President's Challenge* and *FitnessGram*

**Objective:** To measure upper body strength and endurance by counting the number of push-ups the student can do at a rhythmic pace.

**Equipment:** Mat or other clean and cushioned surface, metronome, or audiotape. A pre-recorded cassette or CD is available through *FitnessGram*.

**Testing:** The student being tested assumes a prone position on the mat with hands placed under the shoulders, fingers stretched out, legs straight and slightly apart, and toes tucked under. The student pushes up off the mat with the arms until arms are straight, keeping legs and back straight. The back should be kept in a straight line from head to toes throughout the test. The student lowers the body, using the arms, until the elbows bend at a 90-degree angle and the upper arms are parallel to the floor. This movement is repeated as many times as possible. According to *FitnessGram*, a partner watches to see that the student being tested bends the elbow to 90 degrees with the upper arms parallel to the floor. According to *President's Challenge*, the partner holds his or her hand at the point of the 90-degree angle so the student being tested goes down only until his or her shoulder touches the partner's hand.

Push-ups are performed to a metronome, audiotape, or to the test administrator's "Up, Down" command, with one complete push-up every three seconds, and continued until the student has not done the last three on pace. (*FitnessGram* calls for push-ups to be continued until the second form correction is made or the student can no longer continue.)

**Scoring:** Record only those push-ups performed with proper form and rhythm.

**3b. Pull-up**

**Source:** *President's Challenge* and *FitnessGram*

**Objective:** To measure upper body strength and endurance by counting the maximum number of pull-ups completed.

**Equipment:** A horizontal bar approximately 1½ inch in diameter at a height from which the student can hang with arms fully extended with feet off the floor.

**Testing:** The student hangs from a horizontal bar with arms and body fully extended, feet free from the floor, using an overhand grasp (palms facing away from the body) or an underhand grip (palms facing toward the body). *FitnessGram* only allows the overhand grip with palms facing away from the body. Small students may be lifted to the starting position. The student raises his/her body until the chin clears the bar, and then lowers the body to full-hang starting position. The student performs as many correct pull-ups as possible.

**Recommendations for test administration:** Pull-ups should be done in a smooth, rather than jerky, motion. Kicking or bending the legs is not permitted, and the body should not swing during the movement.

**Scoring:** Total number of pull-ups the student performs correctly.

### **3c. Modified Pull-up**

**Source:** *FitnessGram*

**Objective:** To count the number of successfully completed modified pull-ups.

**Equipment:** A modified pull-up stand, pencil, and score sheet are necessary to administer this test.

**Testing:** The student lies down on his/her back with the shoulders directly under a bar that has been set one to two inches above the student's reach. Place an elastic band seven to eight inches below and parallel to the bar.

The student grasps the bar with an overhand grip (palms away from body). Pull-up begins in “**down**” position with arms and legs straight, buttocks off the floor, and only the heels touching the floor. The student then pulls up until his/her chin is above the elastic band.

**Recommendations for test administration:** The movement should be done using only the arms. The body must be kept straight. The movement must be rhythmical and continuous. The student may not stop and rest. The test should be terminated if the student experiences extreme discomfort or pain.

**Scoring:** The score is the number of correct pull-ups performed.

### **3d. Flexed-Arm Hang**

**Source:** *President's Challenge* and *FitnessGram*

**Objective:** To measure upper body strength by timing how long the student can maintain the flexed-arm hang position.

**Equipment:** A horizontal bar approximately 1½ inch in diameter (placed at a height from which the student can hang with arms and legs fully extended and with feet off the floor) and a stopwatch.

**Testing:** Using either the underhand or overhand grip, the student assumes a flexed-arm hang position with chin clearing the bar. (The *FitnessGram* only allows for use of the overhand grip with palms facing away from the body.) The student may be lifted to this position. The student, on the start signal, holds this position as long as possible. The chest should be held close to the bar with legs hanging straight. Time stops when the

student's chin touches or falls below the bar. (*FitnessGram* specifies the watch is stopped when the student's chin touches the bar, his head tilts backward to keep his chin above the bar, or his chin falls below the level of the bar.)

**Scoring:** Record the number of minutes and seconds the student maintains the proper flexed-arm hanging position.

#### **4. FLEXIBILITY**

Maintaining adequate joint flexibility is important to functional health. Decreased flexibility is generally not a significant health problem for young people. However, students need to understand the importance of maintaining flexibility and range of motion as they age.

*(Choose one of the following to administer.)*

##### **4a. Sit and Reach**

**Source:** *President's Challenge*

**Objective:** To measure flexibility of lower back and hamstrings by reaching as far as possible with the fingertips.

**Equipment:** This assessment requires a sturdy box approximately 12 inches high (four-fold mats may be stacked to 12 inches in lieu of the box). A measuring scale (meter stick) is placed on top of the box with 23 centimeters at the level of the feet.

**Testing:** The student removes his/her shoes and sits on the floor with knees fully extended, feet shoulder-width apart and soles of feet held flat against the end of the box (or mats). With hands on top of each other, palms down, and legs held flat, the student reaches along the measuring line as far as possible. After **three practice reaches**, the **fourth reach is held** while the distance is recorded. The legs must remain straight, soles of feet against the box, and fingertips of both hands should reach evenly along the measuring line.

**Scoring:** Scores are recorded to the nearest centimeter.

##### **4b. Back-Saver Sit and Reach**

**Source:** *FitnessGram*

The Back-Saver Sit and Reach is very similar to the traditional Sit and Reach except that it is performed one side at a time. The measurement is performed on one side at a time so that students are not encouraged to hyper extend.

**Objective:** To measure hamstring flexibility by measuring how far the student can reach on the right and left sides of the body. The distance required to achieve healthy fitness range is age and sex adjusted.

**Equipment:** This assessment requires a sturdy box approximately 12 inches high (four-fold mats may be stacked to 12-inches in lieu of the box) and a measuring scale (yardstick/twelve inch ruler).

**Set-Up:** The measuring scale is placed on top of the box with the 9-inch mark even with the near edge of the box. The “zero” end of the ruler is nearest the student.

**Testing:** The student removes his/her shoes and sits down in front of the test apparatus. One leg is fully extended with the foot **flat** against the end of the box. The other knee is bent with the sole of the foot flat on the floor and two to three inches to the side of the straight knee. The arms are extended forward over the measuring scale with the hands placed one on top of the other. With palms down, the student reaches forward with both hands along the scale four times and holds the position of the **fourth** reach for at least one second. After measuring one side, the student reverses the position of the legs and reaches again.

**Scoring:** Record the **highest** number of inches reached (both sides, right and left) to the nearest 1/2 inch reached and to a maximum of 12 inches.

#### 4c. V-Sit Reach

**Source:** *President's Challenge*

**Objective:** To measure the flexibility of the lower back and hamstrings by measuring how far a student can reach forward in the V position.

**Equipment:** A clean surface and a measuring scale (yardstick and/or tape measure).

**Set-Up:** A straight line, two feet long, is marked on the floor as the baseline. A measuring line is drawn perpendicular to the midpoint of the baseline extending two feet on each side and marked off in half inches. The point where the baseline and measuring line intersect is the “zero” point.

**Testing:** The student removes his or her shoes and sits on the floor with a measuring line between the legs and the soles of the student’s feet immediately behind the baseline, heels 8 to 12 inches apart. The student clasps his or her thumbs so that the hands are together, palms down, placing them on the measuring line. With the legs held flat by a partner, the student slowly reaches forward as far as possible, keeping his or her fingers on the baseline and feet flexed. After three practice tries, the student **holds the fourth reach** for **three seconds** while the distance reached is recorded. The legs must remain straight with the soles of the feet held perpendicular to the floor (feet flexed). Students should be encouraged to reach slowly rather than bounce while stretching.

**Scoring:** The score is recorded to the nearest  $\frac{1}{2}$  inch and is read as plus scores for reaches beyond baseline, minus scores for reaches behind baseline.

## 5. BODY COMPOSITION (Optional)

Although body composition is an important component of wellness-related fitness, it is not required due to the sensitive issues surrounding this component. **Districts may choose to collect this data, but they are not required to submit results to DESE.**

The body composition test results provide an estimation of the percent of a student's weight that is fat in contrast to fat-free body mass (muscles, bones, and organs).

Maintaining appropriate body composition is vital in preventing the onset of obesity, which is associated with increased risk of coronary heart disease, stroke, and diabetes.

### 5a. Body Mass Index

**Source:** *President's Challenge* and *FitnessGram*

**Objective:** To measure the appropriateness of a child's weight relative to height.

**Testing:** Body Mass Index is determined by the following formula:

**Weight (kg)/Height (m)<sup>2</sup>**    **Weight (2.2lbs=1 kg)**    **Height (1 inch=0.00254m)**

**Example:** While the data can be entered in pounds and inches, the results are only meaningful with the metric formula. A 16-year-old boy weighing 154 pounds (70 kg) and 68 inches tall (1.727 meters) has a body mass index of 23.5.

Body Mass Index does not estimate the percent of fat; it merely provides information on the appropriateness of the weight relative to the height. For those children found to be heavy for their height, a skin fold test would clarify if the weight were due to excess fat. (For recommended BMI scores, refer to the manuals from *President's Challenge* and *FitnessGram*.)

10

### 5b. Skin fold Measurements

**Source:** *FitnessGram*

**Objective:** To measure a student's triceps and calfskin fold thickness for calculation of the percent of body fat.

**Equipment:** A skin fold caliper is necessary to perform this measurement. Both expensive and inexpensive calipers have been shown to be effective when used by teachers who have had sufficient training and practice.

**Testing:** The triceps and calfskin folds are easily measured and are highly correlated with total body fat. The skin fold fat measure consists of a double layer of subcutaneous fat and skin.

The triceps skin fold is measured on the back of the arm over the triceps muscle of the right arm midway between the elbow and the acromion process of the scapula. The skin fold site should be vertical. Pinching the fold slightly above the midpoint will ensure that the fold is measured right on the midpoint.

The calfskin fold is measured on the inside of the right leg at the level of the maximal calf girth. The right foot is placed flat on an elevated surface with the knee flexed at a 90-degree angle. The vertical skin fold should be grasped just above the level of maximal girth.

**Recommendations for test administration:** Skin fold measurements should be performed in a setting that provides the students with privacy. Skin folds should be measured on the right side of the body. The student should be instructed to relax the arm or the leg being measured. The skin fold should be firmly grasped between the thumb and forefinger and lifted away from the other body tissue. The grasp should not be so firm that it is painful. The caliper is placed in the middle of the fold. (An instructional video for taking skin fold measurements is available through *FitnessGram*.)

**Scoring:** The skin fold measure is registered on the dial of the caliper. Each measurement should be taken three times, with the recorded score being the median (middle) of the three scores. Each reading is recorded to the nearest .5 millimeter.

## REPORTING

School districts must report Missouri Physical Fitness Assessment results annually to the Missouri Department of Elementary and Secondary Education (DESE) for all fifth- and ninth-grade students. Use the “Missouri Criteria for the Healthy Fitness Range” on pages 20 through 24 of this manual to determine the number of students that meet or exceed the Healthy Fitness Range for each component. Record these numbers by school building on Screen 17 “Local Physical Fitness Assessment,” and transmit the data electronically to DESE no later than June 15 each year. (See page 17 for a sample of Screen 17.) Individuals in the district’s central office have access to this computer screen.

Data to be collected and reported to DESE on Screen 17 includes:

- Number of fifth- and ninth-grade students by gender who are assessed
- Number of fifth- and ninth-grade students by gender who are not assessed
- Number of fifth- and ninth-grade students by gender that meet or exceed the Healthy Fitness Range
- Number of minutes per week for physical education classes for fifth-grade students
- Average class size for fifth-grade students
- Percentage of ninth-grade students who are enrolled in physical education classes
- Average class size for physical education classes that include ninth-grade students

We expect that students with special health care needs may not be able to be assessed on every component of the Physical Fitness Assessment; however, we encourage district personnel to administer as many of the components as possible. (A student’s IEP will be helpful in determining which assessments can be administered.) For this reason, the number of students tested in every component may vary depending on the number of students who may not be able to be assessed due to special health-care needs.

**Note:** Districts should collect and report data for **all** fifth- and ninth-grade students, even though the Criteria for the Healthy Fitness Range are listed for ages.

The Missouri Department of Elementary and Secondary Education will generate a statewide report of all data collected. The goal is not to compare districts but rather to monitor statewide fitness levels over time to see if improvements are occurring. **The Department will not link results of the Physical Fitness Assessment to the student’s written MAP score, and the results will not be included in the district’s MSIP Performance Report.** District staff should share individual student data with students and parents/guardians for the purposes of helping students to set goals and develop a self-improvement plan.

## LOCAL PHYSICAL FITNESS ASSESSMENT (SCREEN 17)

The Local Physical Fitness Assessment screen is used to collect the results of the locally administered physical fitness assessment data. The number of students tested, number not tested, and number meeting or exceeding the healthy fitness range (HFR) are reported by school for grades 5 and 9. In addition, the number of minutes per week 5<sup>th</sup> grade students are scheduled for Physical Education (PE) and the average class size for 5<sup>th</sup> grade PE classes, and the percentage of 9<sup>th</sup> grade students enrolled in PE and the average class size for PE classes that enroll 9<sup>th</sup> grade students are reported by school.

SCREEN: 17 CORE DATA SYSTEM 04/24/2000  
VERSION: 11.0 LOCAL PHYSICAL FITNESS ASSESSMENT 11:41 am

SCHOOL YEAR: .... DIST CODE/NAME: .... .....  
SCHOOL NO/NAME: .....

GRADE / GENDER	AEROBIC CAPACITY	ABDOMINAL STRENGTH	UPPER BODY STRENGTH	FLEXIBILITY
5 - FEMALE: # TESTED	0	0	0	0
: # NOT TESTED	0	0	0	0
: # > HFR	0	0	0	0
5 - MALE: # TESTED	0	0	0	0
: # NOT TESTED	0	0	0	0
: # > HFR	0	0	0	0
9 - FEMALE: # TESTED	0	0	0	0
: # NOT TESTED	0	0	0	0
: # > HFR	0	0	0	0
9 - MALE: # TESTED	0	0	0	0
: # NOT TESTED	0	0	0	0
: # > HFR	0	0	0	0

GRADE 5 - MINUTES PER WEEK: 000  
GRADE 9 - PERCENTAGE IN PE: 0.00

AVERAGE CLASS SIZE: 00  
AVERAGE CLASS SIZE: 00

F1 -HELP  
F2 -BROWSE  
F3 -EXIT  
F6 -NXT SCHL  
SHFT-F4 -DEL  
F12 - SAVE

LAST ACTION: .. / .. / ....  
Press F3 to Exit, F2 to Scroll or Enter for new Building.

NOTE: See pages 17 and 18 for further descriptions of data entry fields and function keys.

**ITEM DEFINITIONS  
LOCAL PHYSICAL FITNESS ASSESSMENT (Screen 17)**

**SCHOOL YEAR** - Item is displayed from Date and Time Setup, Screen M.6.1.

**DISTRICT CODE/NAME** - Item is displayed from District Data screen (02).

**SCHOOL NUMBER/NAME** - 4-digit school number of the attendance center. Name of the attendance center is displayed from Attendance Center screen (08).

The four physical fitness assessment components (column headings) are:

**AEROBIC CAPACITY  
ABDOMINAL STRENGTH  
UPPER BODY STRENGTH  
FLEXIBILITY**

Report the number of students in these four assessment components as follows:

**GRADE 5 - FEMALE/# TESTED** – Number of 5<sup>th</sup> grade female students at this school tested in each of the physical fitness assessment components.

**GRADE 5 - FEMALE/# NOT TESTED** – Number of 5<sup>th</sup> grade female students at this school not tested in each of physical fitness assessment components.

**GRADE 5 - FEMALE/# > HFR** – Number of 5<sup>th</sup> grade female students at this school who meet or exceed the healthy fitness range (HFR) criteria in each of the physical fitness assessment components.

**GRADE 5 - MALE/# TESTED** – Number of 5<sup>th</sup> grade male students at this school tested in each of the physical fitness assessment components.

**GRADE 5 - MALE/# NOT TESTED** – Number of 5<sup>th</sup> grade male students at this school not tested in each of the physical fitness assessment components.

**GRADE 5 - MALE/# > HFR** – Number of 5<sup>th</sup> grade male students at this school who meet or exceed the healthy fitness range (HFR) criteria in each of the physical fitness assessment components.

**GRADE 9 - FEMALE/# TESTED** – Number of 9<sup>th</sup> grade female students at this school tested in each of the physical fitness assessment components.

**GRADE 9 - FEMALE/# NOT TESTED** – Number of 9<sup>th</sup> grade female students at this school not tested in each of the physical fitness assessment components.

**GRADE 9 - FEMALE/# > HFR** – Number of 9<sup>th</sup> grade female students at this school who meet or exceed the healthy fitness range (HFR) criteria in each of the physical fitness assessment.

**GRADE 9 - MALE/# TESTED** – Number of 9<sup>th</sup> grade male students at this school tested in each of physical fitness assessment components.

**GRADE 9 - MALE/# NOT TESTED** – Number of 9<sup>th</sup> grade male students at this school not tested in each of the physical fitness assessment components.

**GRADE 9 - MALE/# > HFR** – Number of 9<sup>th</sup> grade male students at this school who meet or exceed the healthy fitness range (HFR) criteria in each of the physical fitness assessment components.

**GRADE 5 - MINUTES PER WEEK** – Number of minutes per week 5<sup>th</sup> grade students at this school are scheduled for Physical Education class.

**GRADE 5 - AVERAGE CLASS SIZE** – Average Physical Education class size for 5<sup>th</sup> grade students at this school.

**GRADE 9 - PERCENTAGE IN PE** – Percentage of 9<sup>th</sup> grade students enrolled in a Physical Education class at this school.

**GRADE 9 - AVERAGE CLASS SIZE** – Average Physical Education class size at this school for 9<sup>th</sup> grade students.

#### **FUNCTION KEYS**

(The following function keys are available on this screen.)

**F1-HELP** - Displays information about the current screen.

**F2-BROWSE** - Displays list of grade level screens currently entered. Use cursor movement keys and enter key to select grade level screen to update.

**F3-EXIT** - Returns to the Core Data - Update Menu screen.

**F6-NXT SCHL** - Displays the next school in the district.

**F12 SAVE** - Saves data entered.

**SHFT-F4-DELETE** - Deletes the information currently displayed.

**5<sup>th</sup> GRADE**  
**MISSOURI CRITERIA FOR HEALTHY FITNESS RANGE**

**AEROBIC CAPACITY**

<b>GIRLS</b>				
<b>Age</b>	<b>1a</b>	<b>One Mile Run/Walk (Min: Sec)</b>	<b>1b</b>	<b>PACER (# of laps)</b>
<b>10</b>		12:30		15
<b>11</b>		12:00		15
<b>12</b>		12:00		23
<b>13</b>		11:30		23

<b>BOYS</b>				
<b>Age</b>	<b>1a</b>	<b>One Mile Run/Walk (Min: Sec)</b>	<b>1b</b>	<b>PACER (# of laps)</b>
<b>10</b>		11:30		23
<b>11</b>		11:00		23
<b>12</b>		10:30		32
<b>13</b>		10:00		41

**ABDOMINAL STRENGTH/ENDURANCE**

<b>GIRLS</b>						
<b>Age</b>	<b>2a</b>	<b>Curl-up (Timed)</b>	<b>2b</b>	<b>Curl-up (Cadence)</b>	<b>2c</b>	<b>Partial Curl-up</b>
<b>10</b>		30		12		24
<b>11</b>		32		15		27
<b>12</b>		35		18		30
<b>13</b>		37		18		40

<b>BOYS</b>						
<b>Age</b>	<b>2a</b>	<b>Curl-up (Timed)</b>	<b>2b</b>	<b>Curl-up (Cadence)</b>	<b>2c</b>	<b>Partial Curl-up</b>
<b>10</b>		35		12		24
<b>11</b>		37		15		26
<b>12</b>		40		18		32
<b>13</b>		42		21		39

**Note:** For purposes of reporting to DESE, the Missouri Criteria for the Healthy Fitness Range (HFR) should be used. Only the lower end of the HFR is listed.

**5<sup>th</sup> GRADE**  
**MISSOURI CRITERIA FOR HEALTHY FITNESS RANGE**

**UPPER BODY STRENGTH/ENDURANCE**

<b>GIRLS</b>							
Age	3a Push-up (Completed)		3b Pull-up (Completed)		3c Modified Pull-up (Completed)		3d Flexed-Arm Hang (Seconds)
	Over Grip	Under Grip	Over Grip	Under Grip	Over Grip	Under Grip	
10	7	1	1	4	4	8	
11	7	1	1	4	6	7	
12	7	1	1	4	7	7	
13	7	1	1	4	8	8	

<b>BOYS</b>							
Age	3a Push -up (Completed)		3b Pull-up (Completed)		3c Modified Pull-up (Completed)		3d Flexed-Arm Hang (Seconds)
	Over Grip	Under Grip	Over Grip	Under Grip	Over Grip	Under Grip	
10	7	1	1	4	5	4	12
11	8	1	2	6	6	11	
12	10	1	2	7	10	12	
13	12	1	3	8	12	14	

**FLEXIBILITY**

<b>GIRLS</b>			
Age	4a Sit &Reach (Centimeters)	4b Back-Saver Sit & Reach (Inches)	4c V-Sit Reach (Inches)
10	28	9	3.0
11	29	10	3.0
12	30	10	3.5
13	31	10	3.5

<b>BOYS</b>			
Age	4a Sit & Reach (Centimeters)	4b Back-Saver Sit & Reach (Inches)	4c V-Sit Reach (Inches)
10	25	8	1.0
11	25	8	1.0
12	26	8	1.0
13	26	8	0.5

**Note:** For purposes of reporting to DESE, the Missouri Criteria for the Healthy Fitness Range (HFR) should be used. Only the lower end of the HFR is listed.

**9<sup>th</sup> GRADE**  
**MISSOURI CRITERIA FOR HEALTHY FITNESS RANGE**

**AEROBIC CAPACITY**

<b>GIRLS</b>		
<b>Age</b>	<b>1a One Mile Run/Walk (Min: Sec)</b>	<b>1b PACER (# of laps)</b>
<b>13</b>	11:30	23
<b>14</b>	11:00	23
<b>15</b>	10:30	23
<b>16</b>	10:00	32
<b>17</b>	10:00	41

<b>BOYS</b>		
<b>Age</b>	<b>1a One Mile Run/Walk (Min: Sec)</b>	<b>1b PACER (# of laps)</b>
<b>13</b>	10:00	41
<b>14</b>	9:30	41
<b>15</b>	9:00	51
<b>16</b>	8:30	61
<b>17</b>	8:30	61

**ABDOMINAL STRENGTH/ENDURANCE**

<b>GIRLS</b>			
<b>Age</b>	<b>2a Curl-up (Timed)</b>	<b>2b Curl-up (Cadence)</b>	<b>2c Partial Curl-up</b>
<b>13</b>	37	18	40
<b>14</b>	37	18	30
<b>15</b>	36	18	26
<b>16</b>	35	18	26
<b>17</b>	34	18	40

<b>BOYS</b>			
<b>Age</b>	<b>2a Curl-up (Timed)</b>	<b>2b Curl-up (Cadence)</b>	<b>2c Partial Curl-up</b>
<b>13</b>	42	21	39
<b>14</b>	45	24	40
<b>15</b>	45	24	45
<b>16</b>	45	24	37
<b>17</b>	44	24	42

**Note: For purposes of reporting to DESE, the Missouri Criteria for the Healthy Fitness Range (HFR) should be used. Only the lower end of the HFR is listed.**

**9<sup>th</sup> GRADE**  
**MISSOURI CRITERIA FOR HEALTHY FITNESS RANGE**

**UPPER BODY STRENGTH/ENDURANCE**

<b>GIRLS</b>								
<b>Age</b>	<b>3a Push-up (Completed)</b>		<b>3b Pull-up (Completed)</b>		<b>3c Modified Pull-up (Completed)</b>		<b>3d Flexed-Arm Hang (Seconds)</b>	
	Over	Under	Grip	Grip	Over	Under	Over	Under
<b>13</b>	7	1	1		4	8	8	
<b>14</b>	7	1	1		4	8	9	
<b>15</b>	7	1	1		4	8	7	
<b>16</b>	7	1	1		4	8	7	
<b>17</b>	7	1	1		4	8	7	

<b>BOYS</b>								
<b>Age</b>	<b>3a Push-up (Completed)</b>		<b>3b Pull-up (Completed)</b>		<b>3c Modified Pull-up (Completed)</b>		<b>3d Flexed-Arm Hang (Seconds)</b>	
	Over	Under	Grip	Grip	Over	Under	Over	Under
<b>13</b>	12	1		2		8	12	13
<b>14</b>	14	2		3		9	15	20
<b>15</b>	16	3		4		10	15	30
<b>16</b>	18	5		5		12	15	28
<b>17</b>	18	5		6		14	15	30

**FLEXIBILITY**

<b>GIRLS</b>				
<b>Age</b>	<b>4a Sit &amp;Reach (Centimeters)</b>		<b>4b Back-Saver Sit &amp; Reach (Inches)</b>	
	4c V-Sit Reach (Inches)			
<b>13</b>	31	10	3.5	
<b>14</b>	33	10	4.5	
<b>15</b>	36	12	5.0	
<b>16</b>	34	12	5.5	
<b>17</b>	35	12	4.5	

<b>BOYS</b>				
<b>Age</b>	<b>4a Sit &amp; Reach (centimeters)</b>		<b>4b Back-Saver Sit &amp; Reach (Inches)</b>	
	4c V-Sit Reach (Inches)			
<b>13</b>	26	8	.5	
<b>14</b>	28	8	1.0	
<b>15</b>	30	8	2.0	
<b>16</b>	30	8	3.0	
<b>17</b>	34	8	3.0	

**Note:** For purposes of reporting to DESE, the Missouri Criteria for the Healthy Fitness Range (HFR) should be used. Only the lower end of the HFR is listed.